Amendments to the Claims

This listing of claims will replace all prior versions, and listings of claims in the application:

Listing of Claims

Claims 1-10 (cancelled)

11. (currently amended): A ~~The~~ method ~~of claim 9,~~ comprising:

a) obtaining at least a first nuclease inhibitor, wherein the first nuclease inhibitor is a RNase inhibitor protein or an anti-nuclease antibody;

b) obtaining at least a second nuclease inhibitor wherein the second nuclease inhibitor ~~organic compound~~ is oligovinylsulfonic acid (OVA), aurintricarboxylic acid (ATA), aflatoxin, 2-nitro-5-thiocyanobenzoic acid, iodoacetate, N-bromosuccinimide, p-chloromercuribenzoate, ~~diethyl pyrocarbonate, ethanol, formamide, guanidinium thiocyanate (GdnSCN),~~ dinitrofluorobenzene, decanavanate, polyvinylsufonic acid, hydrobenzoinphosphate, phenylphosphate, putrescine, haloacetate, dinitrofluorobenzene, phenylglyoxal, bromopyruvic, ~~hydroxylamine-oxygen-cupric ion, a vanadyl complex,~~ 8-amino-5-(4'-hydroxy-biphenyl-4-ylazo)-naphthalene-2-sulfonate, 6-hydroxy-5-(2-hydroxy-3,5-dinitro-phenylazo)-naphthalene-2-sulfonate, 3,3'-dimethylbiphenyl-4,4'-bis(2-amino-naphthylazo-6-sulfonate), 4,4'-dicarboxy-3,3'-bis(naphthylamido)-diphenylmethanone, 3,3'-dicarboxy-4,4'-bis(4-biphenylamido) diphenylmethane, ~~or~~ 3,3'-dicarboxy-4,4'-bis(3-nitrophenylamido)diphenylmethane or NCI-224131;

c) obtaining a composition; and

d) admixing the first nuclease inhibitor, the second nuclease inhibitor and the composition to form an admixture;

wherein nucleases that may be present in the admixture are inhibited.

Claims 12-13 (cancelled)

14. (currently amended): A ~~The~~ method ~~of claim 13,~~ comprising:

a) obtaining at least a first nuclease inhibitor, wherein the first nuclease inhibitor is a RNase inhibitor protein;

b) obtaining at least a second nuclease inhibitor wherein the second nuclease inhibitor ~~nitrogenous base~~ is purine, pyrimidine, cytidine-N3-oxide 2'-phosphate, 2'CMP, ppAp, Ap3A, Ap4A, Ap5A, ATP, 5'AMP, 5'ADP, 3'UMP, 2'UMP, 2'CMP, pAp (5'P-A-3'P), dUppAp, dUppA2'p, pdUppAp, pTp, pTppAp, TpdA, TppdA, 4-thiouridine 3'p, 5-nitro-uracil, 5-aminoethyl-uracil or (Bromoacetamido)nucleoside;

c) obtaining a composition; and

d) admixing the first nuclease inhibitor, the second nuclease inhibitor and the composition to form an admixture;

wherein nucleases that may be present in the admixture are inhibited.

Claims 15-26 (cancelled)

27. (Currently amended): A ~~The~~ method ~~of claim 26,~~ comprising:

a) obtaining at least a first nuclease inhibitor, wherein the first nuclease inhibitor is an anti-RNase antibody or a RNase inhibitor protein;

b) obtaining at least a second nuclease inhibitor wherein the second nuclease inhibitor ~~chaotrope~~ is SCN^-, Li^+, ClO_4^-, or guanidinium;

c) obtaining a composition; and

d) admixing the first nuclease inhibitor, the second nuclease inhibitor and the composition to form an admixture;

wherein nucleases that may be present in the admixture are inhibited.

28. (currently amended): A ~~The~~ method ~~of claim 7,~~ comprising:

a) obtaining at least a first nuclease inhibitor, wherein the first nuclease inhibitor is an anti-RNase antibody or a RNase inhibitor protein;

b) obtaining at least a second nuclease inhibitor wherein the second nuclease inhibitor ~~oligonucleotide~~ is an RNA or DNA oligonucleotide;

c) obtaining a composition; and

d) admixing the first nuclease inhibitor, the second nuclease inhibitor and the composition to form an admixture;

wherein nucleases that may be present in the admixture are inhibited.

29. (currently amended): A ~~The~~ method ~~of claim 7,~~ comprising:

a) obtaining at least a first nuclease inhibitor, wherein the first nuclease inhibitor is an anti-RNase antibody or a RNase inhibitor protein;

b) obtaining at least a second nuclease inhibitor wherein the second nuclease inhibitor ~~oligonucleotide~~ is an aptamer, a competitive inhibitor comprising a ribonucleoside, a deoxyribonucleoside, a dideoxyribonucleoside, a thiol-containing RNA, or a DNP-poly(A);

c) obtaining a composition; and

d) admixing the first nuclease inhibitor, the second nuclease inhibitor and the composition to form an admixture;

wherein nucleases that may be present in the admixture are inhibited.

Claims 30-31 (cancelled)

32. (Currently amended): The method of claim 11 ~~31~~, wherein the ~~proteinaceous compound is an~~ RNase inhibitor protein is obtained from a human, a chimpanzee, a rat, a mouse, a pig, yeast, or by recombinant means, or derivatives therein.

Claims 33-35 (cancelled)

36. (currently amended): The method of claim 86 ~~35~~, wherein the antibody is a soluble anti-nuclease antibody.

37. (currently amended): The method of claim 86 ~~35~~, wherein the antibody is an anti-RNase antibody.

38. (original): The method of claim 37, wherein the anti-RNase antibody is an anti-RNase T1 antibody or an anti-RNase 1 antibody.

39-44 (canceled)

45. (currently amended): A ~~The~~ method ~~of claim 7, wherein the small molecule comprises an~~ comprising:

a) obtaining at least a first nuclease inhibitor, wherein the first nuclease inhibitor is an anti-nuclease antibody;

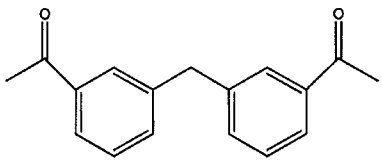
b) obtaining at least a second nuclease inhibitor wherein the second nuclease inhibitor comprises a non-proteinaceous polycyclic aromatic structure;

c) obtaining a composition; and

d) admixing the first nuclease inhibitor, the second nuclease inhibitor and the composition to form an admixture;

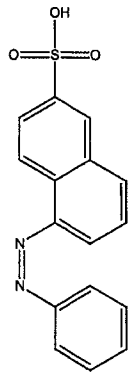
wherein nucleases that may be present in the admixture are inhibited.

46. (original): The method of claim 45, wherein the aromatic structure is:

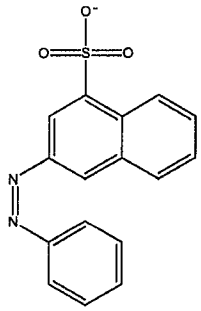


47. (canceled).

48. (currently amended): The method of claim <u>45</u> ~~47~~, wherein the polycyclic aromatic structure is:



or



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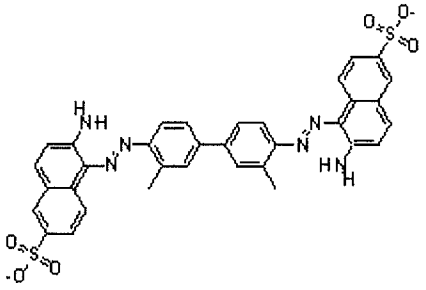
49. (currently amended): The method of claim 45, wherein the <u>second nuclease inhibitor</u> ~~small molecule~~ comprises the following structure:



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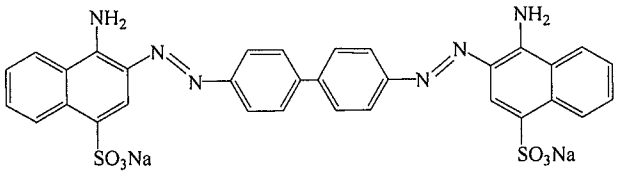
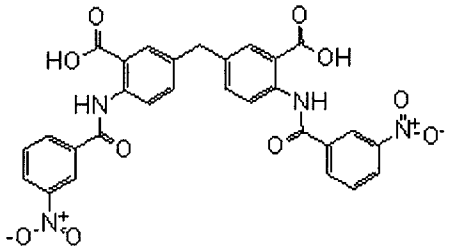


, or



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50.-56. (canceled)

57. (currently amended): The method of claim 45, wherein the second nuclease inhibitor ~~small molecule~~ comprises a structure selected from the group consisting of NCI-65828, NCI 65845, benzopurpurin B, NCI-65841, NCI 79596, NCI-9617, NCI-16224, suramin, direct red 1, NCI-7815, NCI-45618, NCI-47740, prBZBP, NCI-65568, NCI-79741, NCI-65820, NCI-65553, NCI-58047, NCI-65847, xylidene ponceau 2R, eriochrome black T, amaranth, new coccine, acid red 37, acid violet 7, NCI-45608, NCI-75661, NCI-73416, NCI-724225, orange G, NCI 47755, sunset yellow, NCI-47735, NCI-37176, violamine R, NCI-65844, direct red 13, NCI-45601, NCI 75916, NCI-65546, NCI-65855, NCI-75963, NCI-45612, NCI-8674, NCI-75778, NCI-34933, NCI-1698, NCI-7814, NCI-45550, NCI-77521, cefsulodin, NCI-174066, NCI-12455, NCI-45541, NCI-79744, NCI-42067, NCI-45571, NCI-45538, NCI-45540, NCI-9360, NCI-12857, NCI-D726712, NCI-45542, NCI-7557, S321443, ~~NCI-224131,~~ NCI-45557, NCI-1741, NCI-1743, NCI-227726, NCI-16163, NCI-16169, NCI-88947, NCI-17061, NCI-37169, beryllon II,, CB-0181431, CB-473872, JLJ-1, JLJ-2, JLJ-3, CB-467929, CB-534510, CB-540408, CB-180582, CB-180553, CB-186847, CB-477474, CB-152591, NCI-37136, NCI-202516, CB-039263, CB-181145, CB-181429, CB-205125, and CB-224197.

58. (currently amended): The method of claim 57, wherein the second nuclease inhibitor ~~small molecule~~ is NCI-65828.

59. (currently amended): The method of claim 58, wherein the second nuclease inhibitor ~~small molecule~~ is a derivative of NCI-65828.

60. (previously presented): The method of claim 59, wherein the derivative of NCI-65828 comprises at least one modification selected from the group consisting of: a reduction of the azo to hydrazido, replacement of the azo by an amide, an attachment of a hydroxyl group to position 6 of the naphthalene ring, an attachment of an electron-withdrawing group to position 6 of the naphthalene ring, replacement of a carbon atom in an aromatic ring with a nitrogen or an oxygen, and a replacement of the hydroxyl group on the biphenyl component with a sulfonate.

61. (original): The method of claim 59, wherein the derivative of NCI-65828 comprises at least one modification selected from the group consisting of: an addition of a hydrogen-bonding group and substitution of a hydroxyl group with an anionic group to the biphenyl component.

62. (original): The method of claim 61, wherein the hydrogen-bonding group is selected from the group consisting of a hydroxyl, an amino, and an amide.

63. (original): The method of claim 61, wherein the anion is selected from the group consisting of a carboxylate, a sulfate, a sulfonate, a phosphate, and a phosphonate.

64. (currently amended): The method of claim 57, wherein the second nuclease inhibitor ~~small molecule~~ is CB-473872.

65. (currently amended): The method of claim 64, wherein the second nuclease inhibitor ~~small molecule~~ is a derivative of CB-473872.

66. (original): The method of claim 65, wherein the derivative of CB-473872 comprises an addition of at least one of a hydrogen-bonding group selected from the consisting of: a hydroxyl, an amino, a methyldiamino, a hydroxyethyl, an ethyl-N-formamido, a carboxyamido, a carboxy, a 2-oxo-N-piperidinyl, and a *p*-benzoyl.

67. (original): The method of claim 65, wherein the derivative of CB-473872 comprises Structure II or Structure III, and wherein:

R_0 is -H, $-NH_2$, or -OH;

R_3 is -H, $-CH_2OH$, or $CONH_2$;

R_4 is -H, -COOH, or 2-oxo-N-piperidinyl;

R_5 is -H or *p*-benzoyl group.

68. (original): The method of claim 65, wherein the derivative of CB-473872 comprises a replacement of a carbon atom in an aromatic ring with a nitrogen or an oxygen.

69.-73. (canceled)

74. (currently amended): A ~~The~~ method comprising ~~of claim 45, wherein the small molecule~~

a) obtaining at least a first nuclease inhibitor, wherein the first nuclease inhibitor is benzopurpurin B; ~~and~~

b) obtaining at least a second nuclease inhibitor wherein the second nuclease inhibitor is an anti-nuclease antibody or a RNase inhibitor protein ~~organic compound, an inorganic compound, or a salt~~;

c) obtaining a composition; and

d) admixing the first nuclease inhibitor, the second nuclease inhibitor and the composition to form an admixture;

wherein nucleases that may be present in the admixture are inhibited.

75.-81. (canceled)

82. (currently amended): A method of performing an *in vitro* translation, transcription, reverse transcription or coupled transcription/translation reaction comprising obtaining a composition, the composition comprising the first nuclease inhibitor and a second nuclease inhibitor of claim 93 ~~1~~ and placing the composition in an *in vitro* translation reaction, transcription reaction, reverse transcription reaction or a coupled transcription/translation reaction.

83. (currently amended): A solution comprising the first nuclease inhibitor and the second nuclease inhibitor of claim 93 ~~1~~.

84. (currently amended): A kit comprising the first nuclease inhibitor and the second nuclease inhibitor of claim 93 ~~1~~ and components for RNA isolation, an *in vitro* translation reaction, a reverse transcriptase reaction, an RNA amplification reaction, DNA removal, or *in vitro* transcription.

85. (canceled).

86. (currently amended): A ~~The~~ method comprising ~~of claim 85, wherein the nitrogenous base is purine, pyrimidine,~~:

a) obtaining at least a first nuclease inhibitor, wherein the first nuclease inhibitor is cytidine-N3-oxide 2'-phosphate, 2'CMP, ppAp, Ap3A, Ap4A, Ap5A, ATP, 5'AMP, 5'ADP, 3'UMP, 2'UMP, 2'CMP, pAp (5'P-A-3'P), dUppAp, dUppA2'p, pdUppAp, pTp, pTppAp, TpdA, TppdA, 4-thiouridine 3'p, 5-nitro-uracil, 5-aminoethyl-uracil or (Bromoacetamido)nucleoside;

b) obtaining at least a second nuclease inhibitor wherein the second nuclease inhibitor comprises an anti-nuclease antibody;

c) obtaining a composition; and

d) admixing the first nuclease inhibitor, the second nuclease inhibitor and the composition to form an admixture;

wherein nucleases that may be present in the admixture are inhibited.

87. (canceled): The method of claim 1, wherein the first nuclease inhibitor is an inorganic compound.

88. (canceled): The method of claim 87, wherein the inorganic compound is a metallic ion or a complex comprising Mg^{+2}, Mn^{+2}, Zn^{+2}, Fe^{+2}, Ca^{+2}, or Cu^{+2}.

89. (canceled): The method of claim 1, wherein the first nuclease inhibitor is a salt.

90. (canceled): The method of claim 89, wherein the salt is a monovalent or multivalent salt.

91. (currently amended): A ~~The~~ method ~~of claim 89,~~ comprising:

a) obtaining at least a first nuclease inhibitor, wherein the first nuclease inhibitor is a a salt, wherein the salt is NaCitrate~~, NaCl, $(NH4)_2SO_4$, or KCl~~;

b) obtaining at least a second nuclease inhibitor wherein the second nuclease inhibitor comprises an anti-RNase antibody or an RNase inhibitor protein;

c) obtaining a composition; and

d) admixing the first nuclease inhibitor, the second nuclease inhibitor and the composition to form an admixture;

wherein nucleases that may be present in the admixture are inhibited.

92. (canceled): The method of claim 1, wherein the first nuclease inhibitor comprises an aromatic structure.

93. (currently amended): A ~~The~~ method comprising ~~of claim 92~~,

a) obtaining at least a first nuclease inhibitor, wherein the first nuclease inhibitor comprises ~~the aromatic structure is~~ a non-proteinaceous polycyclic aromatic structure;

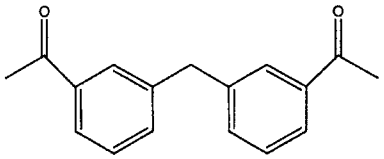
b) obtaining at least a second nuclease inhibitor wherein the second nuclease inhibitor is a RNase inhibitor protein;

c) obtaining a composition; and

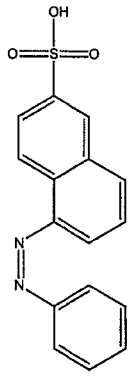
d) admixing the first nuclease inhibitor, the second nuclease inhibitor and the composition to form an admixture;

wherein nucleases that may be present in the admixture are inhibited.

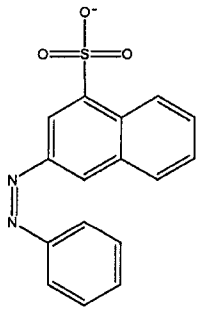
94. (previously presented): The method of claim 93, wherein the aromatic structure is:



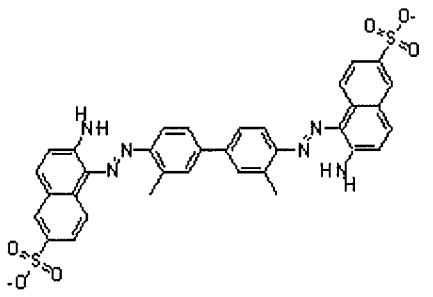
95. (previously presented): The method of claim 93, wherein the aromatic structure is:



or



96. (previously presented): The method of claim 93, wherein the aromatic structure is:



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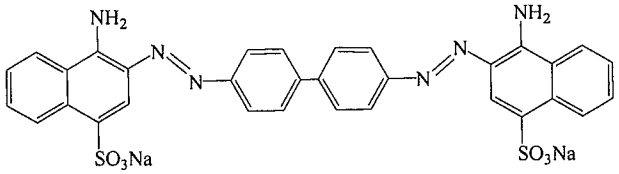
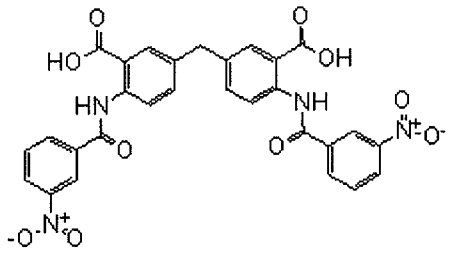


, or



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97. (currently amended): The method of claim 93, wherein the aromatic structure is selected from the group consisting of NCI-65828, NCI 65845, benzopurpurin B, NCI-65841, NCI 79596, NCI-9617, NCI-16224, suramin, direct red 1, NCI-7815, NCI-45618, NCI-47740, prBZBP, NCI-65568, NCI-79741, NCI-65820, NCI-65553, NCI-58047, NCI-65847, xylidene ponceau 2R, eriochrome black T, amaranth, new coccine, acid red 37, acid violet 7, NCI-45608, NCI-75661, NCI-73416, NCI-724225, orange G, NCI 47755, sunset yellow, NCI-47735, NCI-37176, violamine R, NCI-65844, direct red 13, NCI-45601, NCI 75916, NCI-65546, NCI-65855, NCI-75963, NCI-45612, NCI-8674, NCI-75778,

NCI-34933, NCI-1698, NCI-7814, NCI-45550, NCI-77521, cefsulodin, NCI-174066, NCI-12455, NCI-45541, NCI-79744, NCI-42067, NCI-45571, NCI-45538, NCI-45540, NCI-9360, NCI-12857, NCI-D726712, NCI-45542, NCI-7557, S321443, ~~NCI-224131,~~ NCI-45557, NCI-1741, NCI-1743, NCI-227726, NCI-16163, NCI-16169, NCI-88947, NCI-17061, NCI-37169, beryllon II,, CB-0181431, CB-473872, JLJ-1, JLJ-2, JLJ-3, CB-467929, CB-534510, CB-540408, CB-180582, CB-180553, CB-186847, CB-477474, CB-152591, NCI-37136, NCI-202516, CB-039263, CB-181145, CB-181429, CB-205125, and CB-224197.

98. (previously presented): The method of claim 97, wherein the aromatic structure is NCI-65828.

99. (previously presented): The method of claim 98, wherein the aromatic structure is a derivative of NCI-65828.

100. (previously presented): The method of claim 99, wherein the derivative of NCI-65828 comprises at least one modification selected from the group consisting of: a reduction of the azo to hydrazido, replacement of the azo by an amide, an attachment of a hydroxyl group to position 6 of the naphthalene ring, an attachment of an electron-withdrawing group to position 6 of the naphthalene ring, replacement of a carbon atom in an aromatic ring with a nitrogen or an oxygen, and a replacement of the hydroxyl group on the biphenyl component with a sulfonate.

101. (previously presented): The method of claim 99, wherein the derivative of NCI-65828 comprises at least one modification selected from the group consisting of: an addition of a hydrogen-bonding group and substitution of a hydroxyl group with an anionic group to the biphenyl component.

102. (previously presented): The method of claim 101, wherein the hydrogen-bonding group is selected from the group consisting of a hydroxyl, an amino, and an amide.

103. (previously presented): The method of claim 101, wherein the anion is selected from the group consisting of a carboxylate, a sulfate, a sulfonate, a phosphate, and a phosphonate.

104. (previously presented): The method of claim 97, wherein the aromatic structure is CB-473872.

105. (previously presented): The method of claim 104, wherein the aromatic structure is a derivative of CB-473872.

106. (previously presented): The method of claim 105, wherein the derivative of CB-473872 comprises an addition of at least one of a hydrogen-bonding group selected from the consisting of: a hydroxyl, an amino, a methyldiamino, a hydroxyethyl, an ethyl-N-formamido, a carboxyamido, a carboxy, a 2-oxo-N-piperidinyl, and a *p*-benzoyl.

107. (previously presented): The method of claim 105, wherein the derivative of CB-473872 comprises Structure II or Structure III, and wherein:

R_0 is -H, $-NH_2$, or -OH;

R_3 is -H, $-CH_2OH$, or $CONH_2$;

R_4 is -H, -COOH, or 2-oxo-N-piperidinyl;

R_5 is -H or *p*-benzoyl group.

108. (previously presented): The method of claim 105, wherein the derivative of CB-473872 comprises a replacement of a carbon atom in an aromatic ring with a nitrogen or an oxygen.

109. (previously presented): A method comprising:

a) obtaining at least a first nuclease inhibitor, wherein the first nuclease inhibitor is an RNA or DNA oligonucleotide;

b) obtaining at least a second nuclease inhibitor;

c) obtaining a composition; and

d) admixing the first nuclease inhibitor, the second nuclease inhibitor and the composition to form an admixture;

wherein nucleases that may be present in the admixture are inhibited.

110. (currently amended): A method comprising:

a) obtaining at least a first nuclease inhibitor, wherein the first nuclease inhibitor is an RNA or DNA oligonucleotide, an aptamer, or a competitive inhibitor comprising ~~a ribonucleoside,~~ a deoxyribonucleoside, a dideoxyribonucleoside, a thiol-containing RNA, or a DNP-poly(A).

b) obtaining at least a second nuclease inhibitor;

c) obtaining a composition; and

d) admixing the first nuclease inhibitor, the second nuclease inhibitor and the composition to form an admixture;

wherein nucleases that may be present in the admixture are inhibited.

111. (previously presented): A method comprising:

a) obtaining at least a first nuclease inhibitor, wherein the first nuclease inhibitor is an affinity resin;

b) obtaining at least a second nuclease inhibitor;

c) obtaining a composition; and

d) admixing the first nuclease inhibitor, the second nuclease inhibitor and the composition to form an admixture;

wherein nucleases that may be present in the admixture are inhibited.

112. (previously presented): The method of claim 111, wherein the affinity resin is sulfopropyl sepharose or SP sulfopropyl cation exchange resin.

113. (new): A method of performing an *in vitro* translation, transcription, reverse transcription or coupled transcription/translation reaction comprising obtaining a composition, the composition comprising the first nuclease inhibitor and a second nuclease inhibitor of claim 11 and placing the composition in an *in vitro* translation reaction, transcription reaction, reverse transcription reaction or a coupled transcription/translation reaction.

114. (new): A solution comprising the first nuclease inhibitor and the second nuclease inhibitor of claim 11.

115. (new): A kit comprising the first nuclease inhibitor and the second nuclease inhibitor of claim 11 and components for RNA isolation, an *in vitro* translation reaction, a reverse transcriptase reaction, an RNA amplification reaction, DNA removal, or *in vitro* transcription.

116. (new): A method of performing an *in vitro* translation, transcription, reverse transcription or coupled transcription/translation reaction comprising obtaining a composition, the composition comprising the first nuclease inhibitor and a second nuclease inhibitor of claim 14 and placing the composition in an *in vitro* translation reaction, transcription reaction, reverse transcription reaction or a coupled transcription/translation reaction.

117. (new): A solution comprising the first nuclease inhibitor and the second nuclease inhibitor of claim 14.

118. (new): A kit comprising the first nuclease inhibitor and the second nuclease inhibitor of claim 14 and components for RNA isolation, an *in vitro* translation reaction, a reverse transcriptase reaction, an RNA amplification reaction, DNA removal, or *in vitro* transcription.

119. (new): A method of performing an *in vitro* translation, transcription, reverse transcription or coupled transcription/translation reaction comprising obtaining a composition, the composition comprising the first nuclease inhibitor and a second nuclease inhibitor of

claim 27 and placing the composition in an *in vitro* translation reaction, transcription reaction, reverse transcription reaction or a coupled transcription/translation reaction.

120. (new): A solution comprising the first nuclease inhibitor and the second nuclease inhibitor of claim 27.

121. (new): A kit comprising the first nuclease inhibitor and the second nuclease inhibitor of claim 27 and components for RNA isolation, an *in vitro* translation reaction, a reverse transcriptase reaction, an RNA amplification reaction, DNA removal, or *in vitro* transcription.

122. (new): A method of performing an *in vitro* translation, transcription, reverse transcription or coupled transcription/translation reaction comprising obtaining a composition, the composition comprising the first nuclease inhibitor and a second nuclease inhibitor of claim 28 and placing the composition in an *in vitro* translation reaction, transcription reaction, reverse transcription reaction or a coupled transcription/translation reaction.

123. (new): A solution comprising the first nuclease inhibitor and the second nuclease inhibitor of claim 28.

124. (new): A kit comprising the first nuclease inhibitor and the second nuclease inhibitor of claim 28 and components for RNA isolation, an *in vitro* translation reaction, a reverse transcriptase reaction, an RNA amplification reaction, DNA removal, or *in vitro* transcription.

125. (new): A method of performing an *in vitro* translation, transcription, reverse transcription or coupled transcription/translation reaction comprising obtaining a composition, the composition comprising the first nuclease inhibitor and a second nuclease inhibitor of claim 29 and placing the composition in an *in vitro* translation reaction, transcription reaction, reverse transcription reaction or a coupled transcription/translation reaction.

126. (new): A solution comprising the first nuclease inhibitor and the second nuclease inhibitor of claim 29.

127. (new): A kit comprising the first nuclease inhibitor and the second nuclease inhibitor of claim 29 and components for RNA isolation, an *in vitro* translation reaction, a reverse transcriptase reaction, an RNA amplification reaction, DNA removal, or *in vitro* transcription.

128. (new): A method of performing an *in vitro* translation, transcription, reverse transcription or coupled transcription/translation reaction comprising obtaining a composition, the composition comprising the first nuclease inhibitor and a second nuclease inhibitor of claim 45 and placing the composition in an *in vitro* translation reaction, transcription reaction, reverse transcription reaction or a coupled transcription/translation reaction.

129. (new): A solution comprising the first nuclease inhibitor and the second nuclease inhibitor of claim 45.

130. (new): A kit comprising the first nuclease inhibitor and the second nuclease inhibitor of claim 45 and components for RNA isolation, an *in vitro* translation reaction, a reverse transcriptase reaction, an RNA amplification reaction, DNA removal, or *in vitro* transcription.

131. (new): A method of performing an *in vitro* translation, transcription, reverse transcription or coupled transcription/translation reaction comprising obtaining a composition, the composition comprising the first nuclease inhibitor and a second nuclease inhibitor of claim 74 and placing the composition in an *in vitro* translation reaction, transcription reaction, reverse transcription reaction or a coupled transcription/translation reaction.

132. (new): A solution comprising the first nuclease inhibitor and the second nuclease inhibitor of claim 74.

133. (new): A kit comprising the first nuclease inhibitor and the second nuclease inhibitor of claim 74 and components for RNA isolation, an *in vitro* translation reaction, a reverse transcriptase reaction, an RNA amplification reaction, DNA removal, or *in vitro* transcription.

134. (new): A method of performing an *in vitro* translation, transcription, reverse transcription or coupled transcription/translation reaction comprising obtaining a composition, the composition comprising the first nuclease inhibitor and a second nuclease inhibitor of claim 86 and placing the composition in an *in vitro* translation reaction, transcription reaction, reverse transcription reaction or a coupled transcription/translation reaction.

135. (new): A solution comprising the first nuclease inhibitor and the second nuclease inhibitor of claim 86.

136. (new): A kit comprising the first nuclease inhibitor and the second nuclease inhibitor of claim 86 and components for RNA isolation, an *in vitro* translation reaction, a reverse transcriptase reaction, an RNA amplification reaction, DNA removal, or *in vitro* transcription.

137. (new): A method of performing an *in vitro* translation, transcription, reverse transcription or coupled transcription/translation reaction comprising obtaining a composition, the composition comprising the first nuclease inhibitor and a second nuclease inhibitor of claim 91 and placing the composition in an *in vitro* translation reaction, transcription reaction, reverse transcription reaction or a coupled transcription/translation reaction.

138. (new): A solution comprising the first nuclease inhibitor and the second nuclease inhibitor of claim 91.

139. (new): A kit comprising the first nuclease inhibitor and the second nuclease inhibitor of claim 91 and components for RNA isolation, an *in vitro* translation reaction, a reverse transcriptase reaction, an RNA amplification reaction, DNA removal, or *in vitro* transcription.